

INVITATION LETTER

Package Code: TEQIP-III/2019/nitm/127

Current Date: 23-May-2019

Package Name: NITMN/Gas Chromatography

Method: Shopping Goods

To,

Sub: INVITATION LETTER FOR NITMN/Gas Chromatography

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	Gas Chromatography Mass Spectrophotometer	1	NIT Manipur	

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

3. Quotation

- 3.1 The contract shall be for the full quantity as described above.
- 3.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.
- 3.4 Applicable taxes shall be quoted separately for all items.
- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.

5. Quotation shall remain valid for a period not less than **15**days after the last date of quotation submission.
6. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which
 - 6.1 are properly signed; and
 - 6.2 Confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
 - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.
 - 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.
9. Payment shall be made in Indian Rupees as follows:
Satisfactory Delivery & Installation - 10% of total cost
Satisfactory Acceptance - 90% of total cost
10. Liquidated Damages will be applied as per the below:
Liquidated Damages Per Day Min % : N/A
Liquidated Damages Max % : N/A
11. All supplied items are under warranty of **N/A** months from the date of successful acceptance of items and AMC/Others is .
12. You are requested to provide your offer latest by **16:30** hours on **07-Jun-2019**.
13. Detailed specifications of the items are at Annexure I.
14. Training Clause (if any)
15. Testing/Installation Clause (if any)
16. Performance Security shall be applicable: **0%**
17. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.

18. Sealed quotation to be submitted/ delivered at the address mentioned below, **National Institute of Technology, Manipur,Langol, Imphal West 795004**

19. We look forward to receiving your quotation and thank you for your interest in this project.



(Authorized Signatory)

Name & Designation

Annexure I

Sr. No	Item Name	Specifications
1	Gas Chromatography Mass Spectrophotometer	See Appendix I



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Appendix -I

Technical Specification of GCMS System

The Single Quadrupole GCMS with the following features to deliver high performance operation, maximum sensitivity, maximum uptime, and maximum productivity. Systems should have three years comprehensive warranty for GCMS along with all local supplies.

Gas Chromatography system

The front end Gas chromatograph system should be capable of delivering advance separation capabilities and real time self monitoring intelligence to provide superior performance for all MS applications. The Gas Chromatography system supporting the MS should have the following features for enhanced quantification/qualification capabilities.

- The system should have an Autosampler/injector with vial capacity of 15 vials or more. The system should be upgradable to 100 vial or better capacity.
- Autosampler should be capable of handling large volume injection upto 50 uL or better
- Autosampler should be upgradable with bar code reader, dilution , vortex, heating and cooling capability
- Advanced electronic flow control modules with Pressure set points adjustable in increments of 0.01, psi, with typical control ± 0.001 for the range 0.000 to 99.999 psi
- User may select pressure units as psi, kPa or bar
- High performance GC oven temperature control from ambient temperature +4 °C to 450 °C.
- GC Oven Should support 15 oven ramps with 16 plateaus or more, Negative ramps should be allowed
- System should have Gas saver mode to reduce gas consumption without compromising performance.
- Maximum achievable temperature ramp rate should be 100 °C/min
- Atmospheric pressure and temperature compensation is standard, so results do not change, even when the laboratory environment varies
- The system should be provided with Programmable Large Volume Inlet for wide range of capillary column (50, 100, 250, 320 microns) having a heating rate of 800 degree/min or better and should be programmable.
- FID should be quoted with the system
- Split/Spitless inlet

Single Quadrupole Mass Spectrometer with EI:

- One split flow turbomolecular vacuum pump of capacity 250 litres/sec or better for creating high vacuum.
- Rotary vane fore line pump supporting the turbomolecular pump
- Quadrupole should be made up of inert material with hyperbolic shape to have better mass transfer efficiency
- The analyzer should have suitable inbuilt feature to keep it clean from dirty matrix preferably heated quadrupole.
- The system should have facility to use Hydrogen as carrier gas to reduce cost of operation
- System should have Electron multiplier detector with long life and better sensitivity



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- The system should have independently heated GC/MS interface
- Mass range (m/z) upto 1,000 amu or better
- Resolution Unit mass
- Scan rate (electronic) of 12000 u/s or better
- Non coated inert EI source
- Ion source temperature upto 350 °C or better
- Should have software controlled Auto tune or manual tune to enable quick start up for quantitative analysis.
- The sensitivity of system should be as followed and demonstrated at site:
EI Scan S/N 1 μ L of 1pg/ μ L of OFN will produce > 550:1 or higher
EI SIM IDL 30 fg or less with 8 sequential 1 uL injection of 100fg/uL OFN Standard

Software Control System

WorkStation Instrument Control software allows you to perform the following tasks:

- Start and stop the instruments from the software
- Download settings to the GC and the Single Quad in real time to control the instrument
- Evaluate if the MS parameters are within the limits to produce the specified mass accuracy and resolution with a Check tune report
- Optimize MS parameters automatically or manually through software tuning programs and print an Auto tune report
- Monitor the actual conditions of the instrument
- View the real-time plot for chromatograms and instrument parameters (both GC and MS) and print a real-time plot report

Quantitative analysis- Qualitative analysis Features

- Imports information directly from the acquisition method
- Provides a curve-fit assistant to test all fits and statistics on curve quality
- For fast method development, this software is used to quickly review the qualitative aspects of the data, such as the optimum precursor to product ion transitions.
- Qualitative Analysis program to present large amounts of data for review in one central location.
- Extract chromatograms
- View and extract peak spectra
- Subtract background
- Integrate the chromatogram
- Find compounds

Library:

NIST 2014 library with license to be supplied with the system. Fatty acid library, pesticide library and flavor & fragrance library to be supplied separately. A metabolite spectral database of at least 1000 compounds should be supplied with the system



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Accessories:

All Gas Cylinder with Double Stage Regulators, Gas Purification Panel, Suitable Columns, 5 Kva online UPS with 30 Min battery back up to be included with the offer and Laser printer also to be included in scope of supply.

System should be supplied up to NIT Manipur by vendors.

FORMAT FOR QUOTATION SUBMISSION
(In letterhead of the supplier with seal)

Date: _____
To: _____

Sl. No.	Description of goods \ (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
Total Cost							

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Amount in figures) (Rupees _____ amount in words) within the period specified in the Invitation for Quotations.
We confirm that the normal commercial warranty/ guarantee of _____ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.
We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier
Name: _____
Address: _____
Contact No. _____